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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/638,982	08/12/2003	Donald A. Ice	15436.75.1.1	6290

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EXAMINER

NGUYEN, HUNG THANH

ART UNIT	PAPER NUMBER
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2841

DATE MAILED: 10/12/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/638,982	ICE, DONALD A.	
	Examiner	Art Unit	
	HUNG T. NGUYEN	2841	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 July 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 8-22 is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |



DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pusateri et al. (US 6,008,995) in view of Henschen (US 3,533,045).

Regarding claim 1: Pusateri et al. discloses in figures 1-7, a front panel (110); a card (104) that includes electronic circuitry, the card having two side edges (left and right side of 114) and being attached to the front panel (card 104 couples with 110), and the card (104) being supported by the card cage (plurality of card guides and boards, see figure 7) at its two side edges (left and right side of 114) when the functional module is received in the electronic equipment enclosure; and at least one connector (102) attached to the card and configured for electrical communication with the electronic circuitry.

Pusateri et al. does not disclose as well as along a substantial portion of the length of the card at a location between the side edges.

Henschen discloses in figure 1, as well as along a substantial portion of the length of the card at a location between the side edges (54).

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Pusateri et al. and Henschen are analogous art because they are from the same field of endeavor to make circuit board.

Therefore, it would have been obvious for one ordinary skill in the art at the time of the invention to make circuit board of Pusateri et al. to have supported as taught by Henschen for the benefit of stability.

Regarding claim 2: Pusateri et al. discloses in figures 1-7, the functional module wherein the card is at least double-wide (130).

Regarding claim 3: Pusateri et al. discloses all elements of the functional module as described above with respect to claim 1 except, Pusateri et al. does not disclose the least one cutout configured and arranged to engage a portion of the card cage proximate the location between the side edges of the card.

Henschen discloses in figures 1, 9 the least one cutout (54, 76) configured and arranged to engage a portion of the card cage proximate the location between the side edges of the card.

Pusateri et al. and Henschen are analogous art because they are from the same field of endeavor to make circuit boards.

Therefore, it would have been obvious for one ordinary skill in the art at the time of the invention to make circuit board of Pusateri et al. to have a cutout as taught by Henschen for the benefit of supporting the boards from vibration.

Regarding claim 4: Pusateri et al. discloses all elements of the functional module as described above with respect to claim 1 except, Pusateri et al. does not disclose the card is supported by the card cage at a second location between the side edges.

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Henschen discloses in figure 1, 9 the card is supported by the card cage (56, 76) at a second location between the side edges.

Pusateri et al. and Henschen are analogous art because they are from the same field of endeavor to make circuit board.

Therefore, it would have been obvious for one ordinary skill in the art at the time of the invention to make boards of Pusateri et al. to be supported between two side edges as taught by Henschen for the benefit of supporting the board from vibration.

Regarding claim 5: Pusateri et al. discloses in figures 1-7, The functional module further comprising at least two fasteners (114) that pass through the front panel (explain in claim 1) and are configured to removably engage the card cage (10), each of the fasteners (114) defining a circumferential slot (80) and comprising; an e-clip (72) substantially disposed in the circumferential slot; and a spring disposed (76) about a portion of the fastener (114).

Regarding claim 6: Pusateri et al. discloses in figures 1-7, the functional module wherein at least one connector (112) is located proximate the front panel.

Regarding claim 7: Pusateri et al. discloses in figures 1-7, the functional module wherein the at least one connector (102) is located proximate a rear edge of the card.

Allowable Subject Matter

Claims 8-22 are allowed.

Regarding claim 8-12: Pusateri et al. discloses in figures 1-7, a body having two side edges and being configured to be removably received in the card cage, the body being supported by the card cage at its two side edges when the functional module is received in the card cage; electronic circuitry disposed on the body; and a plurality of conductive elements disposed about at least a portion of a perimeter of the front panel in a manner so as to reduce electromagnetic emission from within the card cage (element 110 appears to be conductive material and can be used as a shield to reduce electromagnetic) and at least on connector (102) attached to the card and configured for electrical communication with the electronic circuitry.

Pusateri et al. does not disclose body being supported at least half of the length of the body at a location between the side edges. There would be no motivation to make this modification.

Regarding claim 13-17: Pusateri et al. discloses in figures 1-7, a front panel (110), a card (104) attached to the front panel (110) and including electronic circuitry (components on card), the card (104) having first (left side of 114) and second side edges (right side of 114) and at least one connector (102) attached to the card (104) and configured for electrical communication with the electronic circuitry, a plurality of conductive elements disposed about at least a portion of a perimeter of the front panel in a manner so as to reduce electromagnetic emissions from within the card cage

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(element 110 appears to be conductive material and can be used as a shield to reduce electromagnetic).

Pusateri et al. does not disclose at least one cutout formed a long at least half of the length of the card and having opposing edges and being interposed between the first and second side edges. There would be no motivation to make this modification.

Regarding claim 18-22: Pusateri et al. discloses in figures 1-7, an electronic equipment enclosure that includes a card cage having a plurality of card guides disposed in a spaced apart arrangement; and at least one functional module configured to be removably received in the electronic equipment enclosure, the functional module comprising: a front panel (110); a card (104) that includes electronic circuitry (components on card), the card having two side edges (left, right side of 114) and being attached to the front panel (110), and the card (104) being supported by the card cage at its two side edges (left, right side of 114), and at least one connector (102) attached to the card and configured for electrical communication with the electronic circuitry.

Pusateri et al. does not disclose at least half of the length of the card at a location between the side edges, when the functional module is received in the electronic equipment enclosure. There would be no motivation to make this modification.

Relevant Art

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The Gierut (US 5,648,891) teaches plurality of circuit board, Yamada et al. (US 5,211,568) teaches the connector for an edge card, Regnier (US 5,163,847) teaches an assembly for card edge connector, Hayden et al. (US 5,872,701) teaches

the alignment of electronic circuit card, Sarver et al. (US 5,387,132) teaches card edge connector, Biechler et al. (US 5,052,936) teaches an assembly for electrical device.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to HUNG T. NGUYEN whose telephone number is 571-272-5983. The examiner can normally be reached on 8:00AM-5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, REICHARD DEAN can be reached on 571-272-1984. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.


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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

HUNG NGUYEN

10/2/06

HN


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